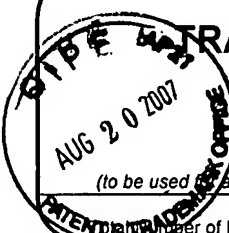
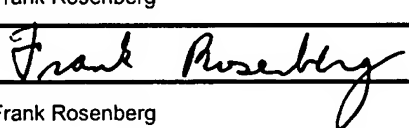
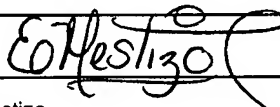


SPD

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| | | |
|---|------------------------|-----------------|
|  <p>TRANSMITTAL FORM</p> <p>(to be used for all correspondence after initial filing)</p> | Application Number | 10/695,400 |
| | Filing Date | 27 October 2003 |
| | First Named Inventor | Fitzgerald |
| | Art Unit | 1743 |
| | Examiner Name | Nagpaul |
| | Attorney Docket Number | 02-027 |
| Number of Pages in This Submission | | 681 |

| ENCLOSURES (Check all that apply) | | |
|---|--|---|
| <input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Form 1449 w/refs |
| Remarks | | |
| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT | | |
| Firm Name | Frank Rosenberg | |
| Signature |  | |
| Printed name | Frank Rosenberg | |
| Date | 8 August 2007 | Reg. No. 37,068 |

| CERTIFICATE OF TRANSMISSION/MAILING | | | |
|---|---|------|-----------------|
| I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below: | | | |
| Signature |  | | |
| Typed or printed name | Esmeralda Mestizo | Date | August 16, 2007 |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|----------------------------|---|-------------------------|
| Brophy et al. | : | |
| Application No. 10/695,400 | : | Art Unit: 1743 |
| Filed: Oct 27, 2003 | : | Examiner: Jyoti Nagpaul |
| For: MANIFOLD DESIGNS, AND | : | Atty Docket: 02-027 |
| FLOW CONTROL IN | : | |
| MICROCHANNEL DEVICES | : | |

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:


Pursuant to the duty of disclosure under 37 CFR §§ 1.56 and 1.97-1.99, the documents listed on the attached Form(s) PTO-1449 are being brought to the attention of the Examiner in charge of the above-identified application. Because no first Office Action on the merits has been mailed, it is believed that no fees are due; however, if any fees are required for consideration of this Information Disclosure Statement, please charge such fees to Deposit Account No. 50-1749.

The Examiner is respectfully requested to initial the space adjacent each document entry on the Form(s) PTO-1449, and to return a copy of the initialled Form(s) PTO-1449 to confirm that the documents have been considered and have been officially made of record in this application.


If the Examiner has any questions or wishes to discuss this application, the Examiner is invited to telephone the undersigned representative at the number set forth below.

Respectfully submitted,

Date: 8 Aug 2007

By: 

Frank Rosenberg
Registration No. 37,068
Tel. No. 415-383-3660

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|--|----|--|-----------|--------------------------------|-------|-------------------------------|-------------|
|  Form PTO-1449 Information Disclosure Citation | | | | Attorney Docket 02-027 | | Application No. 10/695,400 | |
| | | | | Applicant Fitzgerald et al. | | | |
| | | | | Filing Date Oct 27, 2003 | | Group Art Unit 1743 | |
| | | | | | | | |
| U.S. Patent Documents | | | | | | | |
| Examiner Initial | | Patent Number | Date | Name | Class | Sub-Class | Filing Date |
| | AA | | | | | | |
| Foreign Patent Documents | | | | | | | |
| | | Document Number | Date | Country | Class | Sub-Class | Translation |
| | AF | DE 10148926A1 | 4/17/2003 | Germany | | | |
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| | AH | EP 1038575 | 9/27/2000 | Europe | | | |
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| | AJ | DE 19935433A1 | 1/8/99 | Germany | | | |
| | AK | WO 03/080233 | 10/2/03 | PCT | | | |
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| | AM | WO 04/042303 | 5/21/04 | PCT | | | |
| | AN | WO 03/043730 | 5/30/03 | PCT | | | |
| Other Documents (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
| | AR | PCT Search Report from PCT/US2006/012849 mailed Aug 22, 2006 including Written Opinion of the International Searching Authority | | | | | |
| | AS | Amador et al., "Flow Distribution in different microreactor scale-out geometries and the effect of manufacturing tolerances and channel blockage," Chem. Eng. Journal, 101, pp379-390, 2004. | | | | | |
| | AT | PCT International Preliminary Report on Patentability from PCT/US2004/035601 | | | | | |
| | AU | PCT Search Report from PCT/US2004/035601 mailed Apr 12, 2005 including Written Opinion of the International Searching Authority | | | | | |
| | AV | Zhao et al., "Microchannel Heat Exchangers with Carbon Dioxide," pp. 1-103 (2001). | | | | | |
| Examiner | | | | Date Considered | | | |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | | | | | | | |

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|--|--|--|--|--------------------------------|--|-------------------------------|--|
| Form PTO-1449 Information Disclosure Citation | | | | Attorney Docket 02-027 | | Application No. 10/695,400 | |
| | | | | Applicant Fitzgerald et al. | | | |
| | | | | Filing Date Oct 27, 2003 | | Group Art Unit 1743 | |

| U.S. Patent Documents | | | | | | | |
|-----------------------|----|---------------|------|------|-------|-----------|-------------|
| Examiner Initial | | Patent Number | Date | Name | Class | Sub-Class | Filing Date |
| | AA | | | | | | |

| Foreign Patent Documents | | | | | | | |
|--------------------------|----|-----------------|------|---------|-------|-----------|--------------|
| | | Document Number | Date | Country | Class | Sub-Class | Trans-lation |
| | AF | | | | | | |
| | AG | | | | | | |

| Other Documents (Including Author, Title, Date, Pertinent Pages, etc.) | | |
|--|----|---|
| | AH | Mas et al., "Scalable Microfabricated Multiphase reactors for Direct Fluorination Reactions," Transducers '03, 655-658 (2003). |
| | AI | Commenge et al., "Optimal Decisgn for Flow Uniformity in Microchannel Reactors," AIChE Journal, 345-358 (Feb. 2002). |
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| | AU | Delsman et al., "Microchannel Plate Geometry Optimization for Even Flow Distribution at High Flow Rates," Trans. IChemE Part A, 267-275 (Feb 2004). |
| | AV | Jousse et al., "Compact model for multiphase liquid-liquid flows in microfluidic devices," Lab on a Chip, 646-656 (2005). |

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| Examiner | Date Considered |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.